

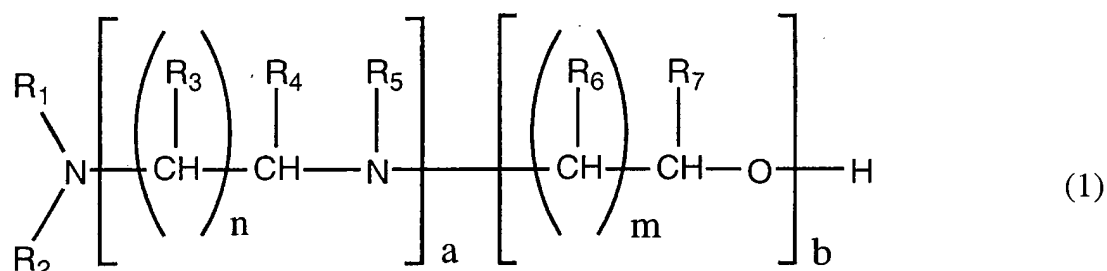
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-19. Canceled.

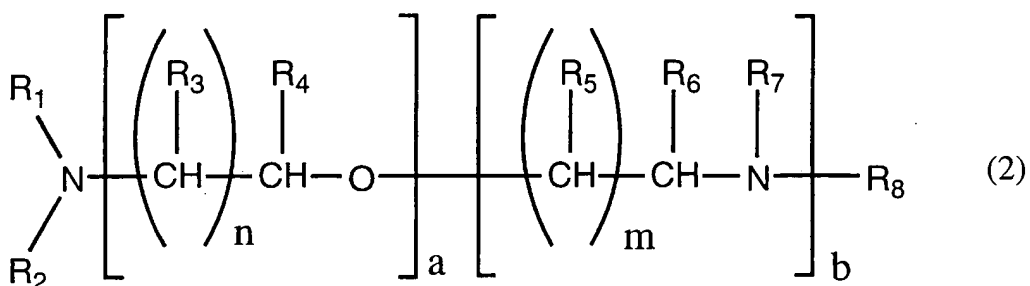
20. (Currently Amended) A method for producing a rigid polyurethane foam, which comprises reacting a polyol with a polyisocyanate in the presence of an amine catalyst and a blowing agent, wherein the amine catalyst used is selected from:

an amine compound of the following formula (1):

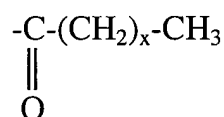


wherein each of R₁ to R₇ which are independent of one another, is hydrogen, a C₁₋₁₆ alkyl group, a C₁₋₁₆ aryl group, a C₂₋₆ hydroxyalkyl group, a C₂₋₆ aminoalkyl group, a C₂₋₆ monomethylaminoalkyl group or a C₂₋₆ dimethylaminoalkyl group, each of n and m which are independent of each other, is an integer of from 1 to 11, and each of a and b which are independent of each other, is an integer of from 0 to 5, provided that R₅ and R₁ or R₂ may together form a cyclic compound having a piperazine structure, an imidazole structure or an imidazoline structure, provided that when a=1 and b = 0, R⁵ is not H; or

an amine compound of the following formula (2):



wherein each of R₁ to R₈ which are independent of one another, is hydrogen, a C₁₋₁₆ alkyl group, a C₁₋₁₆ aryl group, a C₂₋₆ hydroxyalkyl group, a C₂₋₆ aminoalkyl group, a C₂₋₆ monomethylaminoalkyl group, a C₂₋₆ dimethylaminoalkyl group or



wherein x is an integer of from 0 to 3, each of n and m which are independent of each other, is an integer of from 1 to 11, and each of a and b which are independent of each other, is an integer of from 0 to 10, provided that R₇ and R₁ or R₂ may together form a cyclic compound having a piperazine structure, an imidazole structure or an imidazoline structure, and provided that when a=0 and b=1, R⁷ and R⁸ are not H, or

N-(2-dimethylaminoethyl)-N'-methylpiperazine, is used

and as the blowing agent, 1,1,1,3,3-pentafluoropropane (HFC-245fa) is used.

21. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 20, wherein in the formula (1), each of R₁ to R₇ which are independent of one another, is hydrogen atom, a methyl group, a hydroxyethyl group, a

hydroxypropyl group, an aminoethyl group, an aminopropyl group, a monomethylaminoethyl group, a monomethylaminopropyl group, a dimethylaminoethyl group or a dimethylaminopropyl group, provided that R₅ and R₁ or R₂ may together form a cyclic compound having a piperazine structure.

22. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 20, wherein in the formula (2), each of R₁ to R₈ which are independent of one another, is hydrogen atom, a methyl group, a hydroxyethyl group, a hydroxypropyl group, an aminoethyl group, an aminopropyl group, a monomethylaminoethyl group, a monomethylaminopropyl group, a dimethylaminoethyl group, a dimethylaminopropyl group or an acetyl group, provided that R₇ and R₁ or R₂ may together form a cyclic compound having a piperazine structure.

23. (Previously Presented) A method for producing a rigid polyurethane foam, which comprises reacting a polyol with a polyisocyanate in the presence of an amine catalyst and blowing agent, wherein as the amine catalyst, at least one amine compound selected from the group consisting of N-acetylenediamine, N,N,N'-trimethyldiethylenetriamine, N,N,N',N''-tetramethyltriethylenetetramine, N,N,N',N'',N'''-pentamethyltetraethylenepentamine, N,N,N',N'',N''',N''''-hexamethylpentaethylenhexamine, N,N,N',N'',N''',N''''-polyoxypropylenediamine; trimethylethylenediamine, trimethylpropylenediamine, trimethylhexamethylenediamine, tetramethyldiethylenetriamine, bis(N,N-dimethylaminopropyl)amine, N-methylpiperazine; N,N-dimethylaminoethanol, N,N-dimethylaminoisopropanol, N,N-

dimethylaminoethoxyethanol, N,N-dimethylaminoethyl-N'-methylaminoethanol, N,N-dimethylaminopropyl-N'-methylaminoethanol, N,N,N'-trimethyl-N'-hydroxyethylbisaminoethyl ether, N,N-dimethylaminoethyl-N'-methylaminoethyl-N''-methylaminoisopropanol, N,N-bis(3-dimethylaminopropyl)-N-isopropanolamine, N-(3-dimethylaminopropyl)-N,N-diisopropanolamine, N-(2-hydroxyethyl)-N'-methylpiperazine, N,N-dimethylaminohexanol, 5-dimethylamino-3-methyl-1-pentanol and N-(2-dimethylaminoethyl)-N'-methylpiperazine and

the blowing agent is 1,1,1,3,3-pentafluoropropane (HFC-245fa).

24. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 20 wherein the blowing agent and water are used in combination.

25. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 20, wherein the amine catalyst is used in an amount of from 0.01 to 20 parts by weight per 100 parts by weight of the polyol.

26. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 20, wherein the reaction is carried out by adding a surfactant as an auxiliary agent.

27. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 20, wherein the reaction is carried out by adding a cross-linking agent or a chain extender as an auxiliary agent.

28. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 20, wherein the reaction is carried out by adding a flame retardant as an auxiliary agent.

29. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 23, wherein the blowing agent and water are used in combination.

30. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 23, wherein the amine catalyst is used in an amount of from 0.01 to 20 parts by weight per 100 parts by weight of the polyol.

31. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 23, wherein the reaction is carried out by adding a surfactant as an auxiliary agent.

32. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 23, wherein the reaction is carried out by adding a cross-linking agent or a chain extender as an auxiliary agent.

33. (Previously Presented) The method for producing a rigid polyurethane foam according to Claim 23, wherein the reaction is carried out by adding a flame retardant as an auxiliary agent.